Trends in Perceived Cost as a Barrier to Medical Care, 1991–1996

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ABSTRACT

Objectives. This study examined trends in perceived cost as a barrier to medical care.

Methods. The Behavioral Risk Factor Surveillance System was used to analyze monthly telephone survey data from 45 states.

Results. Overall, the percentage of persons perceiving cost as a barrier to medical care increased from 1991 until early 1993 and then declined to baseline values in late 1996. Perceived cost was a greater barrier in 1996 than in 1991 for persons with low incomes and for those who were unemployed and uninsured. For self-employed persons, percentages increased until mid-1993 and then remained constant.

Conclusions. Further efforts are needed to improve access to medical care for socially disadvantaged populations. (*Am J Public Health.* 1999;89: 1410–1413)

Because of concerns about cost, many people fail to obtain needed medical care, especially those without health insurance and those at low income levels.[1–4] Prominent in the national debate on health care reform in 1993/94 were concerns about high medical costs incurred by individuals[5]; since then, the issue has received less publicity.

Nevertheless, the question of cost as a barrier to care remains important. There is limited recent information available on the extent of the problem,[1,3,6,7] especially from population-based surveys,[2,8–10] nor have trends been examined during the 1990s. We analyzed trends in the perception of cost as a barrier to medical care from 1991 through 1996 by demographic characteristics and health insurance status.

Methods

We obtained data for 1991 through 1996 from the Behavioral Risk Factor Surveillance System (BRFSS); details have been published elsewhere.[11] Briefly, state health departments conducted monthly telephone surveys of persons 18 years and older; 1 randomly selected adult per household was interviewed. Reliability and validity of BRFSS data have been found almost uniformly to be high in nearly 30 methodological studies.[12] A few questions were added on health services and health care coverage beginning in 1991.

We restricted analyses to 45 states in the BRFSS for all 6 years (all states except Arkansas, Kansas, Nevada, Rhode Island, and Wyoming and excluding the District of Columbia). Median annual response rates, based on numbers of persons contacted, ranged from 77.8% to 84.2%, and overall monthly sample sizes ranged from 5756 to 7947.

Definitions

The perception that cost was a barrier to care was based on responses of yes or no to the question "Was there a time during the last 12 months when you needed to see a doctor, but could not because of the cost?"

We categorized age as 18 through 34 years, 35 through 44 years, 45 through 64 years, or 65 years or older; race/ethnicity as White, Black, or Hispanic; income as less than $25 000, $25 000 through $49 999, or $50 000 or more; employment status as employed for wages, self-employed, or unemployed; education level as less than high school, high school graduate–some college, or college graduate; and health insurance status as insured or uninsured.

Statistical Analyses

Data were weighted to produce monthly percentage estimates based on intercensal information on age, race, and sex for each state. After excluding missing, unknown, or refused responses, we pooled data for all states for each of 72 months.

Because of the large monthly sample sizes, we chose not to make individual statistical comparisons based on P values or 95% confidence intervals. Instead, we examined trends by initially plotting weighted monthly percentage estimates for perceived cost as a barrier to medical care by demographic and health insurance variables. These plots indicated no seasonality effects, so we conducted time-series analyses. Estimates were smoothed on the basis of alpha values for weighting and gamma values for trends, and we used the Cochran–Orcutt method to adjust for first-order autocorrelation; the Durbin–Watson test statistics[13] ranged from 0.94 to 1.88, which allowed us to reject the hypothesis of first-order serial correlation.

Results

Overall, the percentage of persons who perceived cost as a barrier to medical care increased from 10% in early 1991 to 14% by early 1993 and then declined to 10% to 11% at the end of the study period (Figure 1).

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This paper was accepted April 17, 1999.

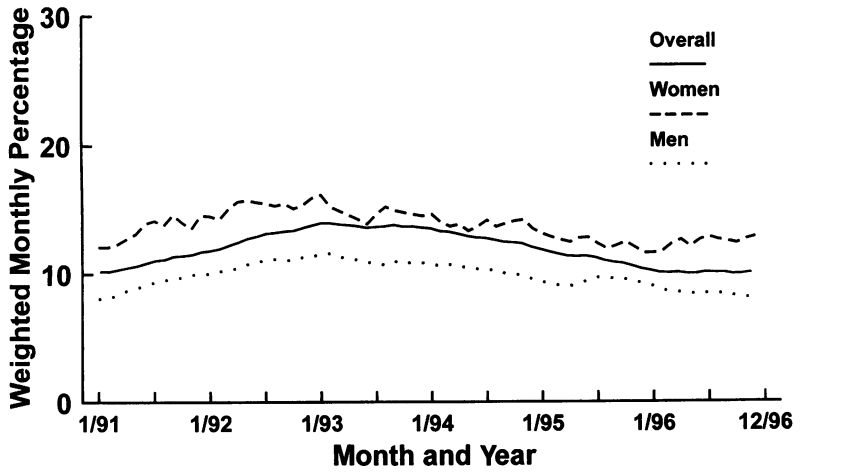

FIGURE 1—Percentage of adults perceiving cost as a barrier to medical care, overall and by sex: Behavioral Risk Factor Surveillance System, 1991–1996.

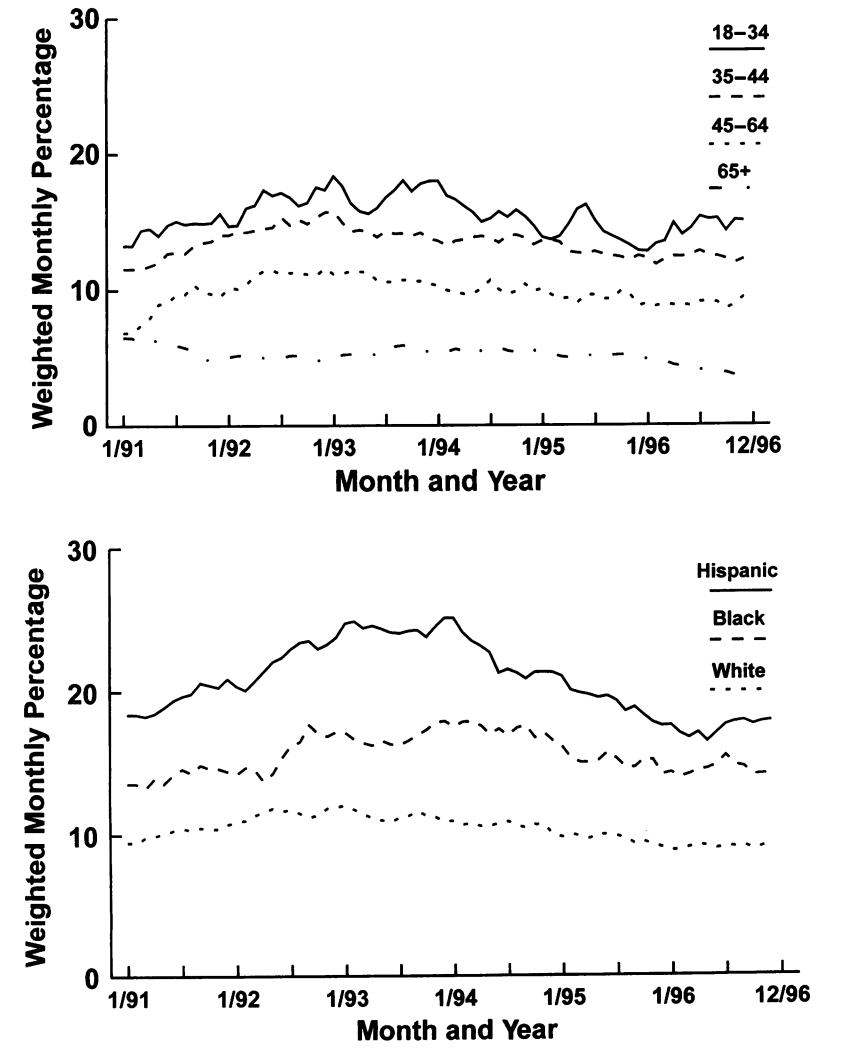

FIGURE 2—Percentage of adults perceiving cost as a barrier to medical care, by age (top) and by race/ethnicity (bottom): Behavioral Risk Factor Surveillance System, 1991–1996.

Consistently, perceived cost was a greater barrier to care among women, younger persons, Blacks, Hispanics, those at lower levels of education or income, those who were unemployed, and those who were uninsured (Figures 1–4).

Trends varied by age. Among persons aged 18 to 34 or 45 to 64 years, estimates were about 2 points higher in late 1996 than in early 1991; among persons aged 35 to 44 years, however, estimates in late 1996 were similar to those in early 1991 (Figure 2, top). In contrast, percentages decreased over the entire period for persons 65 years or older. Trends were similar among men, women, Whites, and Blacks: a gradual increase through early 1993 followed by a decline through 1996 (Figure 1 and Figure 2, bottom). Among Hispanics, however, peak estimates occurred later in 1993.

Trends by education level and income level were comparable (Figure 3). Among those at the lowest education and income levels, percentages increased from 1991 into 1993 and then declined, but they were 4 points higher in late 1996 than in early 1991. For persons in the middle education or income groups, trends were similar to the overall pattern, with values returning approximately to baseline by late 1996. In contrast, percentages consistently declined for college graduates and persons at high income levels.

Patterns differed markedly by employment status (Figure 4, top). Among unemployed persons, estimates peaked in mid-1993 and mid-1995 and then declined, but they remained 3 points higher in late 1996 than in early 1991. Among self-employed persons, percentages increased from early 1991 to mid-1993 and then remained steady. In the uninsured group, estimates increased from early 1991 through mid-1992, remained high through mid-1995, and then declined (Figure 4, bottom); however, they were 7 points higher in late 1996 than in early 1991. Estimates for the insured group peaked in early 1993 and then declined by late 1996 to levels similar to those of early 1991.

Discussion

Those who believe that the current US system for financing health care does not create substantial financial barriers for most individuals will be comforted by the declines that have occurred since 1993 in the percentage of adults perceiving cost as a barrier to medical care, even in the absence of national health care reform. However, for those who believe that the current system performs poorly for disadvantaged populations, these data indicate that, despite some improve-

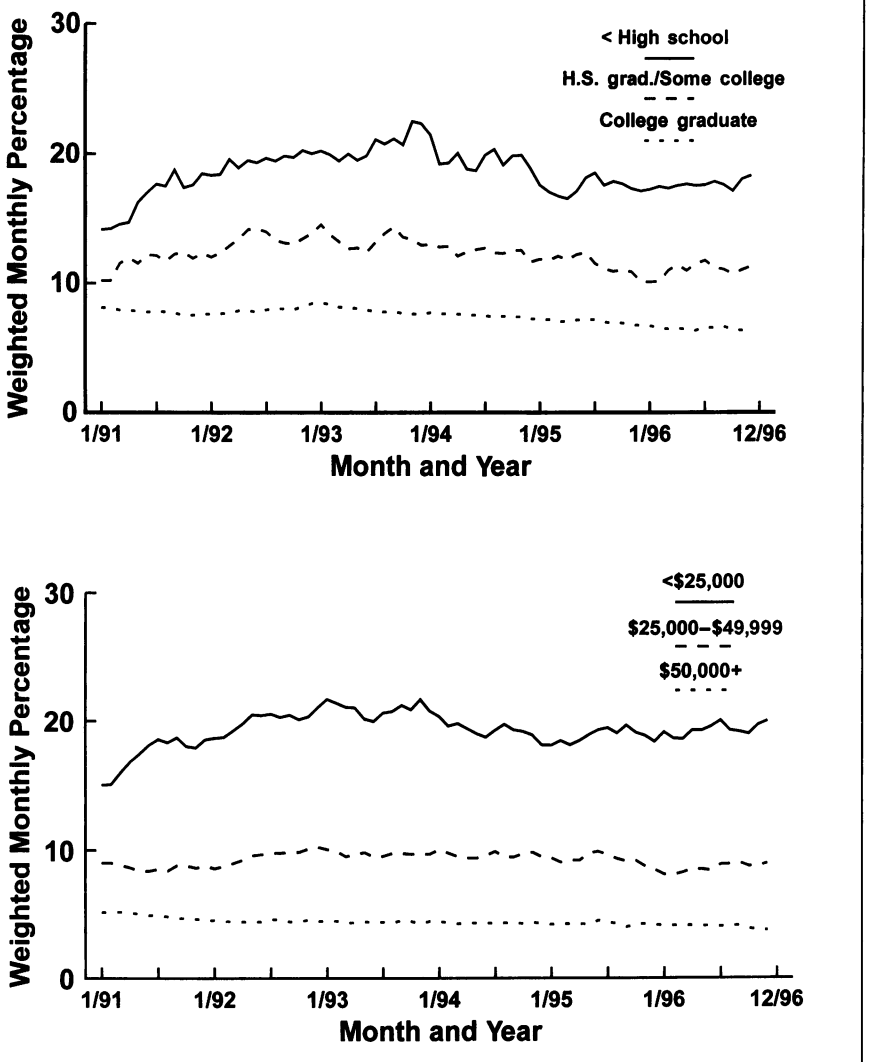

FIGURE 3—Percentage of adults perceiving cost as a barrier to medical care, by education (top) and by income (bottom): Behavioral Risk Factor Surveillance System, 1991–1996.

ment, perceived cost is a barrier that is worsening for some groups.

What can account for the overall trends? A previous study demonstrated an association between unemployment rates and perceived cost as a barrier to care, and our findings paralleled trends in the percentage of persons who were covered through employment-based health plans from 1991 to 1996.[14,15] Other possibilities include changes in the percentage of uninsured persons and managed care enrollment. However, in contrast to our findings, trends in insurance noncoverage and managed care enrollment showed steady increases over this period.[15,16] Another potential factor is media coverage of health care reform. In analyses not shown, the increase in the perception of cost as a barrier to care occurred many months before the increase in media stories on health care reform, while the declines in media stories and in estimates from our study paralleled each other in 1995/96.

Consistent with previous studies, perceived cost was a greater barrier to medical care among persons who were younger, Black, or Hispanic; those at lower levels of education or income; and those who were unemployed.[1,2,8–10] These findings probably reflect, in part, lower rates of health insurance coverage.[15,17,18] Differences by sex may reflect male–female differences in seeking medical care[19] or higher levels of insurance noncoverage among men.[15,17] Those who were uninsured reported the greatest concern with cost as a barrier to care, confirming previous research.[1,2,8–10] Despite declining since 1993, perceived cost was a greater barrier to care in 1996 than in 1991 for the uninsured. This trend bodes poorly for the uninsured, given the increased financial pressures on safety net providers.[20]

Perceived cost as a barrier to care declined for persons 65 years or older and for persons at high education or high income levels. Enrollment in Medicare managed care plans increased during the study period,[17,21] and the improved standard of living among older persons may explain some of the decline among the elderly.[22] The increasing concentration of wealth among those at the highest income levels[23] may also be a factor.

A widening gap in health insurance coverage has developed between those working for wages and those who are self-employed. The rise in health insurance costs may result in more self-employed individuals purchasing policies requiring large out-of-pocket expenses. In our study, in contrast to data from California,[24] the trends for perceived cost cannot be explained by more self-employed workers going without insurance (data not shown).

Our study has limitations. The BRFSS excluded persons without telephones, and this probably resulted in slightly lower estimates for perceived cost. Monthly sample sizes were large, but numbers were smaller for certain populations (e.g., unemployed persons). Our findings may not apply to other types of health services or products such as prescription drugs, nor could we examine trends by type of health insurance.

Because we relied on self-reports, we could not validate responses; thus, we obtained data on perceived cost rather than using an economic approach based on actual or estimated impact of medical costs on household income.[25] The single question on perceived cost may not fully capture the extent to which cost is a barrier to care; this question probably measures perceived cost as a barrier to *needed* medical care services. Perceived need for medical care generally increases with age, yet perceived cost was a greater problem for younger persons. The large differences by age group in the perception of cost as a barrier to care suggest a problem with intergenerational equity in accessing health care.

Our findings highlight the need to continually monitor the extent to which cost is perceived as a barrier to medical care. Despite some improvements since 1993, the uninsured, the self-employed, and the poor perceive cost as continuing to be a major barrier. Because persons of low socioeconomic status and those without health insurance are at greatest risk for premature mortality and morbidity,[26,27] these trends are cause for concern. Further efforts are needed to reduce cost barriers and improve access to medical care for socially disadvantaged populations. □

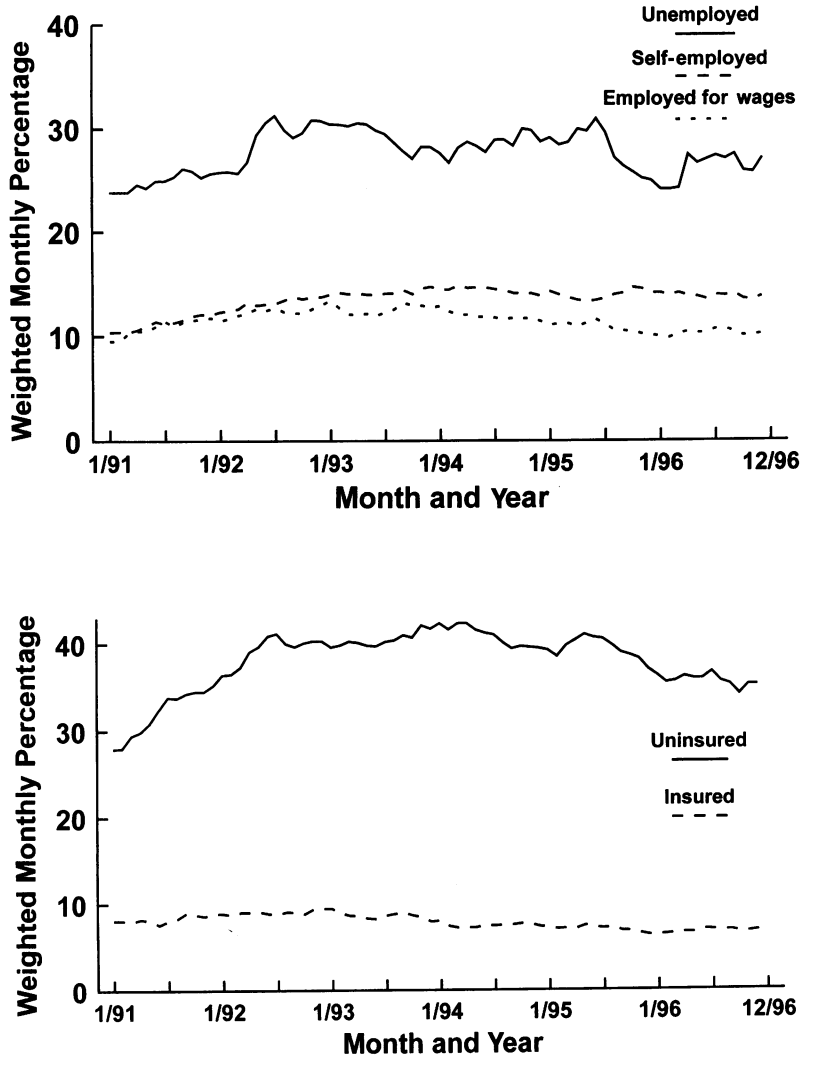

FIGURE 4—Percentage of adults perceiving cost as a barrier to medical care, by employment status (top) and by health insurance status (bottom): Behavioral Risk Factor Surveillance System, 1991–1996.

Contributors

D. E. Nelson and B. L. Thompson planned the study and wrote the paper. S. D. Bland conducted data analyses. R. Rubinson contributed to the study design, analysis, and writing of the paper.

Acknowledgments

We would like to thank Brenda Mazzochi, Suzanne Smith, MD, MPH, Emma Stupp, and Barbara Dougherty for their assistance.

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